

20. The motor assembly of claim 19, wherein the first surface geometry is hexagonal in shape.

21. The motor assembly of claim 19, wherein the first surface geometry is square in shape.

22. The motor assembly of claim 19, further comprising a retainer installed onto the motor shaft.

23. The motor assembly of claim 22, wherein the retainer is coupled to the shaft extension.

24. The motor assembly of claim 23, wherein said retainer comprises a hexagonal threaded nut.

25. The motor assembly of claim 19, wherein the lower assembly comprises a pump impeller.

26. The motor assembly of claim 19, wherein the lower assembly comprises a bearing.

27. The motor assembly of claim 26, wherein the bearing comprises a powdered metal bearing.

28. The motor assembly of claim 26, wherein the bearing comprises a roller ball bearing.

REMARKS

Claims 10-28 are pending in the application. By way of this amendment, claims 10-13, 16 and 17 have been amended and claims 18-28 have been added. The applicants

respectfully submit that the foregoing amendments to claim 16 and 17 resolve any 35 U.S.C. §112 issues.

The applicants traverse the rejections of claims 10-17 as anticipated by or obvious over one or both of Buckingham (U.S. Patent No. 3,575,531) and Philips (French Patent No. 1.165.543).

Claim 10, and claims 11-18 dependent directly or indirectly thereon, recite a method of assembling a motor shaft with a motor component. The method generally includes the step of providing a shaft extension having a first end, wherein the first end has a first surface geometry and wherein the motor shaft has a second surface geometry adapted to mate with the first surface geometry of the first end of the shaft extension. The method also includes the step of interengaging the first surface geometry of the shaft extension with the second surface geometry of the motor shaft so that the shaft extension rotates with the motor shaft.

Claim 19, and claims 20-28 dependent directly or indirectly thereon, recite a motor assembly including a shaft extension having first and second ends, wherein the first end has a first surface geometry. The claims also recite a motor having a motor shaft including a second surface geometry adapted to mate with the first surface geometry of the first end of the shaft extension so that the shaft extension rotates with the motor shaft.

Neither Buckingham nor Philips discloses or suggests a motor shaft assembly method or a motor assembly having a shaft extension having first and second ends, wherein the first end has a first surface geometry and a motor having a motor shaft including a second surface geometry adapted to mate with the first surface geometry of the first end of the shaft extension so that the shaft extension rotates with the motor shaft.

In fact, Philips appears to disclose a technique for adjusting two electrical potentiometers (1, 3) through the use of two adjustment shafts (13, 15) and two knobs (19, 21) mounted through a panel (29). Apparently, the two potentiometers (1, 3) are mounted to a support via a nut (7) that is threaded onto a stud (5) and the two potentiometers (1, 3) may be adjusted using the knobs (19, 21). It appears that Philips does not disclose anything relating to motors.

While Buckingham discloses a motor assembly having a hollow drive shaft (12) and a shaft (46) extending therethrough and affixed thereto by a cap (52) having a key (56) therein, Buckingham does not disclose a motor shaft assembly method or motor assembly including a

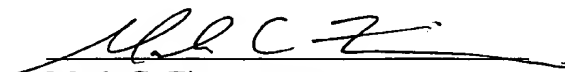
shaft extension having first and second ends, wherein the first end has a first surface geometry and a motor having a motor shaft including a second surface geometry adapted to mate with the first surface geometry of the first end of the shaft extension so that the shaft extension rotates with the motor shaft. Rather, Buckingham discloses that the hollow drive shaft (12) is coaxial with the shaft (46) and the cap (52) is required to attach the hollow drive shaft (12) to the shaft (46). Without the cap (52), the hollow drive shaft (12) and the shaft (46) rotate with respect to one another. The hollow drive shaft does not include a second surface geometry adapted to mate with a first surface geometry of the first end of the shaft extension so that the shaft extension rotates with the motor shaft, as recited by the pending claims.

Because neither Philips nor Buckingham standing alone discloses each of the recitations of the claims at issue, it follows that none of the claims is anticipated thereby. Further, neither reference discloses or suggests that it would be desirable or even possible to combine the elements as recited by the claims at issue, and hence the obviousness rejections are improper and should be withdrawn. See In re Sernaker, 217 U.S.P.Q. 1 (Fed. Cir. 1983) and Ex Parte Clapp, 27 U.S.P.Q. 972, 973 (Bd. Pat. App. 1985).

For the foregoing reasons, reconsideration and withdrawal of the rejections of the claims and allowance thereof are respectfully requested.

Respectfully submitted,
MARSHALL, O'TOOLE, GERSTEIN,
MURRAY & BORUN
233 S. Wacker Drive
Sears Tower 6300
Chicago, Illinois 60606
(312) 474-6300

By:



Mark C. Zimmerman

Reg. No: 44,006

November 15, 2000